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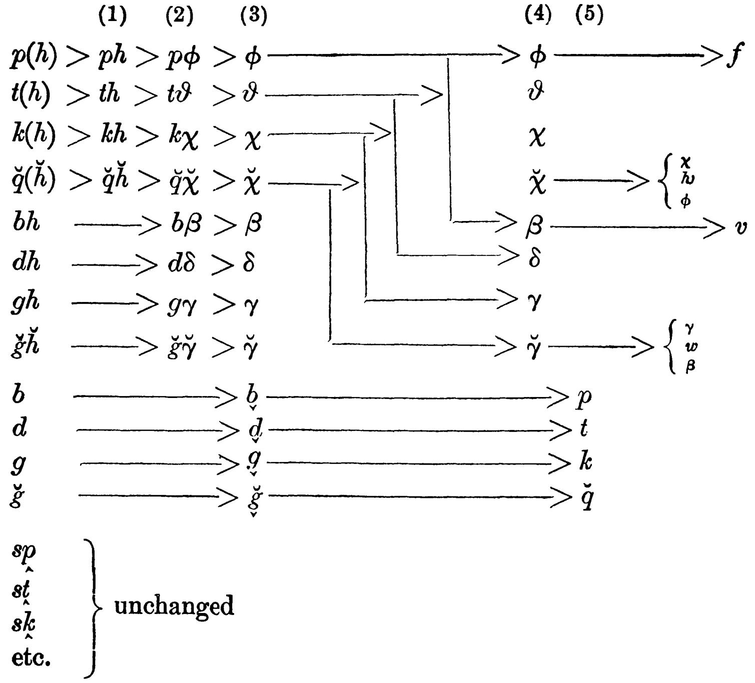
THE RUNES AND THE GERMANIC SHIFT.

IN an article published in this journal (II., pp. 370 etc.) some three years ago, I proved by the order of the runes that the futhark was derived from a Western Greek alphabet. In an article about to appear in another journal, I have reported the finding of a primitive Germanic numerical notation, which fully clears up the only unexplained point in the disarrangement of the Greek letters and clinches the previous proof in a manner that makes it impossible to entertain doubt as to the correctness of my position. I have carefully reweighed the arguments that I brought forward (II., p. 373) in favor of 600 B. C. as the approximate date of the adoption of the Greek alphabet, and, while I should to-day present them in not exactly the same way, I can find no reason for modifying my conclusion.

We know that, prominent among the changes that gradually distinguished Germanic speech from its sister languages, was a series of consonant transformations that we group under the term the Germanic Shift. It is my present purpose to determine what stage had been attained by this shift at the time of the adoption of the Greek letters. This I shall do by a consideration of the use made of some of these letters in representing Germanic sounds. But it is not my intention now to present the whole subject of the use thus made of the Greek letters; this I shall do at another time. At present I shall go no further than is necessary for my immediate purpose.

It will be well at the outset to present in tabular form the various stages of the Germanic shift as it is now generally believed to have taken place. I employ *ƕ*, ϕ, *f*, ϑ, χ, χ̆, for the voiceless fricatives, and *w*, β, *v*, δ, γ, γ̆ for the corresponding voiced fricatives. ϕ and β represent the bilabial fricatives as distinguished from the dentilabials *f* and *v*. The characters *q̆*, *ğ*, χ̆ represent the labio-velars, spelled by Brugmann $q^{u̯}$ etc.

With b̬, d̬, etc. I spell the unvoiced mediae, and with p̭, ṱ, etc. the practically identical weakened tenues.



The key to the situation is given us by the use made of F and Ͱ. These letters we find representing Germanic fricatives that arose out of stops, thus—

$$p > ph > p\phi > \phi\ (> f);$$
$$k > kh > k\chi > \chi.$$

But the only kind of consonants that F and Ͱ represented in Greek were fricatives: Ͱ *h*, F *w*[1] and *ƕ* (Brugmann, Griechische Grammatik[3], § 18, etc., § 21, (11) second paragraph). It is, therefore, perfectly clear that the Germanic sounds had reached the stage of fricatives. It is not even possible that they were still at the affricate stage; for in that case there can be no question that the Greek aspirates would have been employed. We find, however, that no phonological use whatever was made of the Greek aspirates ⊗ and Y (the Western *chi*), while Φ was put to a peculiar use.

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[1] F was doubtless at first used to represent Germanic *w* as well as Germanic *φ*, but was displaced by Ϙ, later ᚹ, when the spelling Ϙ for *q̌* changed to <Ϙ (as the Latin spelling Ϙ changed to ϘV) and Ϙ thus got the value *w*.

We have thus determined that the first three steps in the Germanic shift had been taken, that is, the voiceless stops had become pure fricatives. The use made of Greek ⟐ or Φ enables us to determine another point in the chronology of the Germanic shift. It is clear that this bilabial aspirate, which had no exact correspondent in Germanic, was employed to represent the peculiar labio-velar fricative $\breve{\chi}$, which later became *ƕ*.[1] The square ⟐ suffered in Germanic exactly the same kind of simplification that other box letters suffered, that is, it lost two superfluous sides and become ᛇ, just as ⊟ became H or Ħ in Greek, Latin, Runic, etc., and ⊠ became ⋈ in East Italic, Gallic, Runic, etc. In the Gothic runes this simplification was not yet completed. Thus we find ⊠ on the Frøihov image (ᛁ⊠ᚨᚹ, that is, retrograde *waδi* 'pfand,' as I shall make clear in a forthcoming article) and □ on the Kowel spearhead. And runic ⟐ is still clearly reflected in Ulfilas' uncialized ʘ *ƕ*, as runic ᛟ is in his ᛟ.[2] Now, Germanic *ƕ* had the following development:

$$\breve{q} > \breve{q}\breve{h} > \breve{q}\breve{\chi} > \breve{\chi} > ƕ.$$

Had $\breve{\chi}$ already become *ƕ* when the Greek letters came into use, it is clear that F, which in Greek was used for *w* and *ƕ*, would have been employed to represent Germanic *w* and *ƕ* too,—and not *w* and *ϕ*, which we find it was. Hence, at the time of the adoption of the Greek letters, the Germanic consonant shift had reached stage (3) but had not yet passed stage (5).

In attempting to narrow down these limits, we are not aided by the use made of the Greek stops. The velars (< K X) are ruled out because of their confusion and their subsequent differentiation as < *c* and X γ, see page 74 below. The use of T, runic ᛏ, and Π, runic ᛈ (inverted) and ᛈ (tilted), is not very significant. I formerly (*J.G.P.*, II., p. 374) thought that it indicated that the Indo-European weak voiced stops had become the usual Germanic strong voiceless stops, and that thus the Germanic shift was complete. It is, however, clear that Germanic speech retained unshifted a large number of Indo-European voiceless stops. These were those that stood after a fricative (for example, in *st*, *sp*, etc.), where they were weakened by the preceding fricative (Sievers, *Phonetik*[4], § 773, Hempl, *German Orthography and Phonology*, § 131, N.). These would naturally be represented by the Greek tenues. As for the Indo-European weak voiced stops, it is evident that, on the way to becoming Germanic strong voiceless stops, they must have passed through the stage of weak voiceless stops. Moreover, it is more than probable that this intermediate stage had been reached by the time that the Indo-European voiceless stops had become pure fricatives. They thus must have been practically identical with the old weak voiceless stops preserved after fricatives, and, like them, would naturally be represented by Greek tenues. It is thus clear that the use made of the Greek tenues harmonizes with what we have already determined as to the state of the Germanic shift; but it does not enable us to be more definite.

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[1] In the table of runes given in his article in Paul's Grundriss I., Sievers suggested that ᛇ had the value ƕ; on an other occasion I shall give overwhelming evidence of the correctness of this position and explain the later occasional value χ.

[2] At another time I shall show that the doctrine that the Gothic alphabet is derived from the Gothic futhark, is the correct one.

There is, however, something in the representation of the fricatives that gives us the desired information. We know that in some of the Western alphabets the Semitic fricative which appears in Greek alphabets as Ξ ⊞ and ⊠, still represented a dental fricative and not the *ks* of the Eastern alphabets. Had this ⊠ been used to represent the Germanic dental fricative ϑ, the use of the letter would have accorded exactly with the use made of F and ⊟. Moreover, as we find ᛒ representing the Germanic voiced fricative β, we should expect that Greek ▷ would have been employed to represent the voiced dental fricative δ. But we find ⊠ for δ, and ▷ for ϑ: exactly the reverse of what we should expect. This has been a thorn in the side of every scholar who has tried to explain the runic use of the letters. We shall see directly that it, like most "exceptions," is a welcome source of light.

For the present, let us consider the history of X. Its employment for γ suggests, at first sight, the Ionic X *ch*, rather than the Western X *ks*. But I have proved, in the two papers referred to at the beginning of this article, that the runes were derived from a Western alphabet. Furthermore, we must not forget that the Greek aspirated stops had not yet become fricatives, while the Germanic aspirated stops had and were represented by Greek letters for fricatives; hence, the use of a Greek letter for *ch* to represent Germanic γ would not have been apt at all. On the other hand, Western X was used to spell the group *ks*. Now, the corresponding Germanic group was χ*s*, and X was doubtless used to represent it, just as at a later period Latin X was. We find, however, that the *s* in such a group is likely to assert itself in the spelling; thus we often find in Latin, Old English, etc., XS for X. Such a use of XS for X χ*s* in Runic resulted in a new letter for the sound χ. That is, we should have both ᚺ and X as spellings for the voiceless velar fricative χ. But we actually find X more often as the spelling for the *voiced* velar fricative, just as we find ⋈ for the voiced dental fricative and ▷ for the voiceless.

Such inversion in the use of these letters points to some decided phonological disturbance involving the voiced and voiceless fricatives. Now, we know that Germanic speech suffered just such a disturbance in that the unstressed voiceless fricatives gradually became voiced, according to what we call Verner's law. In this way a large number of fricatives that had been voiceless and had been spelled ⊠ and X, gradually became voiced. It was but natural that they should, however, retain for a time their original spelling, especially in the case of such verbs as OE. *snīþan snāþ snidon sniden*. That is, δ and γ were, to some extent at least, spelled ⊠ and X. That, out of the consequent confusion, a differentiation was effected whereby ⊠ and X became the regular representatives of δ and γ, and ▷ and ⊟[1]

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[1] In the variant runes on the Franks casket (Hempl, *Trans. A. P. A.*, 32, p. 195) a somewhat different differentiation is betrayed. Here X spells both

the consistent spellings for ϑ and χ, is what was to be expected. So far as γ was concerned, the new sign X was very welcome, for ᚲ had, as we know, become confused with ᛕ and was gradually taking its place. That, after a period of confusion, a new differentiation may result in the exact exchange of values, is familiar to us in other languages, for example, in Oscan, whereby Я in this way got the value *d* and ᗡ got the value *r* (*Trans. A. P. A.*, 30, p. 34). It would be pertinent to ask why ᚠ did not in the same way intrude upon the ground of ᛒ and become confused with it. The answer is not far to seek. While the cases of $\vartheta > \delta$ and $\chi > \gamma$ were numerous, particularly in the strong verbs, the change $\phi > \beta$ was rare and practically absent from strong verbs. The temptation, then, to associate the voiced fricative of the preterit and participle with the voiceless fricative found in the present and in the monosyllabic forms of the preterit was very great in the case of $\vartheta > \delta$ and $\chi > \gamma$ and practically non-existent in the case of $\phi > \beta$.

But all this implies that the runes were involved in the disturbance wrought by Verner's law; that is, they came into use before the time of Verner's law. In other words, when the Greek letters were adopted, the voiceless fricatives had come into existence but unstressed voiceless fricatives had not yet become voiced, that is, the Germanic shift was at the stage marked (3) in the table on page 71. The chronology thus arrived at is singularly in harmony with the conclusions of Bethge as expressed in Dieter's *Laut- und Formenlehre der Altgermanischen Dialekte*, I., p. 177.

GEORGE HEMPL.

ANN ARBOR.

χ and γ, while ᚺ is used only as a sign for that χ that became the breathing *h*. Whether this adjustment came down parallel with the usual one or is a later modification of it, I do not now venture to say. Of course, the limitation of ᚺ to *h* must have been late.